Immune marker could clarify prostate cancer treatment choices

A newly published discovery by Associate Professor Loyal Trenton, professor of pathology and immunology, and colleagues could provide new insights into the treatment of prostate cancer. As men who have been diagnosed know, there are various therapeutic options from which to choose. The problem is figuring out which one has the best chance of helping. Hormone therapy, for example, is powerful, effective, but only for some men. “For others, there’s almost no response, and it’s a matter of who is who,” says Trenton.

Hence the potential impact of his team’s observation in prostate cancers in which two key genes, called TPH2 and PTP3A, are deleted. Such cancers metastasize and are very hard to stop. The team has demonstrated that an easy-to-detect immune system component, called IL-4R, is secreted in such cancers, and that signals broadcast by IL-4, in turn, are responsible for activating a powerful cancer gene called MYC, which drives metastasis.

“We’re really hopeful that translating the IL-4 discovery into clinics can help strongly patients into good and bad responders to hormone treatment,” Trenton says. “It would be a major breakthrough.”

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Pershing Square Foundation gift will grow with Lab’s science

The Pershing Square Foundation has established a $10 million fund to support biology, research, and education at CSHL. The fund’s principal will be managed as an endowment by Pershing Square Capital Management and CSHL will receive an annual income of 5%. In 2004, the appreciated principal will be released to the Lab as an unrestricted endowment to support CSHL research in perpetuity. “This uniquely structured donation leverages the strengths of both organizations,” says CSHL Chairman James C. Nichols, “and will advance CSHL’s ability to recruit and support the best and brightest scientists for the future.” The Foundation, based in New York, was established in 2001 by businessman and philanthropist Paul E. Harkrider to support biotechnology research.

How the brain sniffs out fine distinctions

It’s easy to distinguish the smell of gasoline from that of a rose. But what about two similar things, like a lemon and an orange? We can do that too, but it’s much more difficult. For mice, our mammalian cousins, sniffing out fine distinctions is a matter of everyday survival, as the depend on the olfactory sense to detect wafts of danger. Assistant Professor Florin Albeanu’s team has published new research in Neuron that helps explain how fine odor distinctions are made by the brain. Their work points to the critical role played by feedback – signals from the cortex back to the olfactory bulb after an odor has been initially received by the bulb and reported to the cortex for further processing.

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A Man and His Medal: Reunited in Russia

Jim Watson returned from a recent Russia trip with the Nobel Prize medal.

Professor Wigler “Seeks out Cancer” Lecture

Professor Mike Wigler’s wonderful public lecture in Grace Auditorium last month. Watch it here, on vimeo.